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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Roberto Edmundo Pazmino Sanchez

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EXAMINER

LAUX, JESSICA L

ART UNIT

PAPER NUMBER

3635

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DELIVERY MODE

12/10/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/764,194	Applicant(s) SANCHEZ, ROBERTO EDMUNDO PAZMINO	
	Examiner JESSICA LAUX	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,9 and 11-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,9,11-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Response to Arguments

Applicant's arguments, see the after final amendment, filed 11/19/2010, with respect to the rejection(s) of the claim(s) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as presented below.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3,9,11-15,18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (5678372) in view of Jolliffe (4372092).

Claim 1. Thomas discloses a modular building system comprising:

(a) multiple portable pre-cast modules (14), wherein each of the multiple modules comprise:

(i) structural steel mesh (50; Col. 3, lines 66-67, Col. 5, lines 5-14);

(ii) cementitious mortar encasing the structural steel mesh (Col. 3, lines 53-54);

and

(iii) tapered indentations (44) located along edges of the module and exposing portions of the structural steel mesh (as seen in the figures);

(b) metal plate connectors (64); and

wherein the tapered indentations located along edges of the adjacent modules are aligned with each other, the metal plate connectors are situated in the aligned tapered indentations of the adjacent modules, and the adjacent modules form a wall (as seen in the figures).

Thomas does not expressly disclose welds between the metal plate connectors and the exposed portions of the structural steel mesh thereby connecting adjacent modules; instead Thomas discloses ties and bends (66) for connecting the steel mesh and the plate connectors.

It is notoriously common and well known in the art to use welds as apposed to ties or bends for securing metal reinforcing. For example Jolliffe discloses wire mesh that is welded at junctures (Col. 5, lines 28-31). At the time the invention was made it would have been obvious to one of ordinary skill in the art to substitute the bends (64) of

Thomas for a welded connection to provide a more secure and efficient connection of the adjacent metal members.

Claim 3. Thomas discloses the modular building system of claim 1, further comprising: a pourable material (Col. 6, lines 7-13) on the edges of the module in contact with an adjacent module but does not expressly disclose that the pourable material is an epoxy resin.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pourable material of Thomas to be an epoxy resin, where epoxy resins are known for their strength and corrosion resistance, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 9. The modular building system of claim 1, further comprising:

(e) reinforcing steel mesh (the other of the two reinforcing meshes 50 – Col. 5, lines 5-14); but does not disclose at least one of solder and ties connecting the reinforcing steel mesh and the structural steel mesh.

However, it would have been well within the general knowledge and skill of one of ordinary skill in the art to connect the two meshes via ties (where Thomas discloses it is common to secure via ties) or solder (where Jolliffe disclose it is known to secure by weldament) where such a connection would allow the reinforcing to act a single and solid reinforcing throughout the entire panel thereby more efficiently and stably reinforcing the panel.

Claim 11. The modular building system of claim 1, wherein the module is one of: (i) a square, (ii) a rectangle, (iii) a triangle, and (iv) a trapezoid (as seen in the figures).

Claims 12-15,18-19. Thomas in view of Jolliffe disclose the modular building system of claim 1 but do not disclose the specific claimed design parameters of the structural steel mesh and panel. However, Thomas does disclose that it would be obvious to modify the specific dimensions and parameters to accommodate various building requirements (Col. 10, lines 14-34). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a structural steel mesh having a yield stress between 4000 and 6000 kt/cm² or a diameter of 4mm and a spacing of 100mm x 50mm x 100mm x 100mm; a module overall dimension of 750 or 1500 mm x 250mm with a thickness of 40mm; a cementitious mortar including Portland cement, water and sand having a max particle size of 4.8mm, to achieve the desired strength to meet the loads imposed on the panel, since it has been held to be within the general skill of a worker in the art to select a known material (in the instant case the desired steel bars) on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 20. The modular building system of claim 9, wherein the tapered indentations located along edges of the module expose portions of the reinforcing steel mesh (as seen in the figures, and noted in the disclosure).

Claim 21. The modular building system of claim 1, further comprising: (g) cementitious mortar filling voids in the tapered indentations between the cementitious

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mortar encasing the structural steel mesh, the metal plate connectors, and the welds (Col. 6, lines 7-13).

Claim 22. The modular building system of claim 1, wherein the multiple portable pre-cast modules are placed at least one of (i) horizontally adjacent and (ii) vertically adjacent to one another to form a wall (as seen in the figures).

Claims 2,16-17,23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (5678372) in view of Jolliffe (4372092) and further in view of Jazzar (7121061).

Claims 2,23. Thomas in view of Jolliffe disclose the modular building system of claim 1, but do not disclose that each module includes a 90 degree appendix on opposite edges of the module.

Jazzar discloses a system of prefabricated wall modules where each module includes a 90 degree appendix on opposite sides (see the figures).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the panel of Thomas to include a vertical 90 degree appendix on opposite edges to facilitate connection to an adjacent member and provide additional stability to the panel.

Claims 16-17. Thomas as modified by Jolliffe and Jazzar disclose the modular building system of claim 2, but do not expressly disclose that each 90 degree appendix has a length between 30 mm and 100 mm or a length of approximately 50 mm from the edge of the module.

However, applicant has not disclosed that the claimed dimensions provide an advantage or solve a stated problem. Furthermore it appears that the appendices of Jazzar and applicant's claimed appendices would perform the same function of strengthening the module and providing a secure connection means equally well. Further it is noted that the modules of Jazzar and applicant's claimed invention are for the purposes of building structures, and therefore would be subject to size limitations and requirements based on the design and function of the building, and that these limitations would vary depending upon the loads subjected to the modules. Therefore it appears to be a mere matter of design choice that would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the appendices of the prior art to have the claimed dimensions to accommodate the required design parameters of the building.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA LAUX whose telephone number is (571)272-8228. The examiner can normally be reached on Monday thru Thursday, 9:00am to 5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eileen Lillis/
Supervisory Patent Examiner,
Art Unit 3635

/J. L./
Examiner, Art Unit 3635